

## CLAIMS

1. A method of generating a concept dictionary (140) for use in querying an information system (125), comprising the steps of:
- 5 (i) receiving an information search criterion;
- (ii) deriving (105), using a lexical reference source (115), at least one search criterion having related meaning to said received search criterion (110);
- (iii) identifying sets of information in said information system (125) relevant to said received search criterion (110) and to said at least one derived search criterion;
- 10 (iv) analysing the identified sets of information to derive relationships between said received search criterion (110) and said at least one derived search criterion in the context of said information system (125); and
- (v) storing, in a concept dictionary (140), information relating to said received (110) and said at least one derived search criterion and to respective said derived relationships
- 15 therebetween, for use in querying said information system (125).
2. A method as in Claim 1, wherein, at step (i), receiving an information search criterion (110) comprises selecting an information search criterion stored in said concept dictionary (140).
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3. A method as in Claim 1 or Claim 2, wherein, at step (ii), deriving at least one search criterion having related meaning comprises replacing a term of said received search criterion (110) with a related term having a more specific meaning according to said lexical reference source (115).
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4. A method as in any one of claims 1 to 3, wherein, at step (ii) deriving at least one search criterion having related meaning comprises replacing a term of said received search criterion (110) with a related term having a more general meaning according to said lexical reference source (115).
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5. A method as in any one of claims 1 to 4, wherein, at step (ii) deriving at least one search criterion having related meaning comprises replacing a term of said received search criterion (110) with a related term having an equivalent meaning according to said lexical reference source (115).
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6. A method as in any one of the preceding claims, wherein, at step (ii), said lexical reference source (115) is a thesaurus.
7. A method as in any one of the preceding claims, wherein, at step (ii), said lexical  
5 reference source (115) is an ontological database.
8. A method as in any one of the preceding claims, wherein, at step (ii), a plurality of search criteria are derived, each having related meaning to said received search criterion (110), and wherein at step (iv), the respective identified sets of information are analysed to  
10 derive relationships between search criteria comprised in said plurality of derived search criteria.
9. A method as in any one of the preceding claims, wherein, at step (iv), deriving relationships between said search criteria comprises performing fuzzy processing of said  
15 derived search criteria and respective said identified sets of information to determine a measure of the generalisation and/or specialisation of one said search criterion over another in the context of said information system (125).
10. A method of accessing sets of information stored in an information system (125)  
20 using information search criteria stored in a concept dictionary (140) generated for the information system (125) according to the method in any one of claims 1 to 9, comprising the steps of:
- (a) selecting a first information search criterion;
  - (b) using a search engine to identify one or more sets of information in the  
25 information system (125) relevant to said first information search criterion; and
  - (c) selecting at least one further information search criterion from search criteria stored in the concept dictionary (140), semantically related to said first information search criterion according to information stored in the concept dictionary (140), according to whether a more general, a more specialised or an equivalent search is required.
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11. An information retrieval apparatus (100) for accessing sets of information stored in an information system (125), comprising;
- an input for receiving an information search criterion (110);

deriving means (105) for deriving, using a lexical reference source (115), at least one search criterion having related meaning to said received information search criterion (110);

retrieval means (120) for identifying sets of information in said information system  
5 (125) relevant to said received search criterion (110) and to said at least one derived search criterion;

analysis means (135) for analysing said identified sets of information to derive relationships between said received search criterion (110) and said at least one derived search criterion in the context of said information system (125); and

10 updating means for storing, in a concept dictionary (140), information relating to said received (110) and said at least one derived search criterion and to respective said derived relationships therebetween, for use in querying said information system (125).